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EPI-SODE

EPIDEMIOLOGIC **S**URVEILLANCE **O**F COMMUNICABLE **D**ISEAS**E**

WEST NILE VIRUS SEASON HAS BEGUN

West Nile season is well underway nationally and the surveillance season has begun in the state of Washington. A woman from the Spokane area who was hospitalized briefly has tested positive for West Nile virus infection by IgM enzyme immunoassay. The case is listed as probable West Nile illness while confirmatory tests are being run at the state Public Health Laboratories and the Centers for Disease Control and Prevention (CDC). The woman, who is in her twenties, had not traveled outside the state prior to getting sick. So far, Washington state health officials have tested 83 birds, 12 horses, and 38 mosquito pools and all of these have been negative. Kansas reported the season's first human case in the nation, and at the time of this writing 13 human cases have been reported (2 in California and the majority in the Midwest). Four have had neuroinvasive disease and 1 has died.

Many physicians in Washington are using commercial labs to rule out West Nile virus in cases of viral meningitis. We encourage all health care providers to report all cases of West Nile fever and neurological illness to local public health as we can assist with specimen handling and expedite appropriate testing. In addition to monitoring dead birds, local and state health officials are working to identify mosquito species around the state and test some of them for the virus. At least one mosquito species that can be infected with WNV has been found in every county in the state.

Of note, the EPA has recently approved Oil of lemon eucalyptus [p-menthane 3,8-diol (PMD)], a plant based repellent. In two recent scientific publications, when oil of lemon eucalyptus was tested against mosquitoes found in the US, it provided protection similar to repellents with low concentrations of DEET. Hopefully this will increase use of this important mosquito-borne disease prevention tool.

HANTAVIRUS CONFIRMED IN OREGON, SIXTH CASE IN TEN YEARS

A case of Hantavirus Pulmonary Syndrome (HPS) has been confirmed in Oregon in a Washington County resident who recovered, according to the Oregon Department of Human Services (DHS). This is the sixth Oregon case of hantavirus; five cases were reported between 1993 and 1997. Washington has reported 28 cases since 1993. Since HPS was first identified in 1993, a total of 379 laboratory-confirmed cases have been reported nationally, including 32 retrospectively identified cases that occurred before 1993. HPS has been reported in 31 states, the majority of cases in the southwestern United States, and three fourths of cases have been in rural areas.

Rodents, such as deer mice or wild mice may carry Hantavirus. They excrete the virus in urine, droppings and saliva. People can be infected by inhaling concentrated virus particles that become airborne when rodent droppings or nests are disturbed. The first signs of illness appear one to six weeks after exposure to the virus. Early symptoms include fatigue, fever and muscle aches and may progress to coughing and shortness of breath. Rodent droppings or nests in your home or in outside areas, such as garbage cans, woodpiles, sheds or barns, should not be swept, brushed or vacuumed as these will stir up dust and increase the chances of inhalation. First spray the droppings and nests with a household disinfectant, such as Lysol or bleach mixture, and allow them to soak for at least 15 minutes. Wear rubber gloves when cleaning up droppings and seal all materials in double plastic bags before disposing in the trash.

NEW MENINGOCOCCAL VACCINE AVAILABLE

On Jan. 17, 2005, the Food and Drug Administration approved Menactra, a meningococcal polysaccharide diphtheria toxoid conjugate vaccine made by Sanofi Pasteur for protection against meningococcal disease in adolescents and adults aged 11 to 55 years. This vaccine provides improved protection against the same four serogroups of *Neisseria meningitidis* (A, C, Y and W-135) as does the existing meningococcal polysaccharide vaccine, (Menomune®, also made by Sanofi Pasteur). Benefits of the conjugate vaccine include an increased duration of protection, an induction of immunologic memory, booster responses, and potentially the reduction in nasopharyngeal meningococcal carriage.

On February 10th, 2005, the Advisory Committee on Immunization Practices (ACIP) recommended that one of the following groups receive a dose of Menactra:

- Children 11 to 12 years of age
- Teens entering high school
- College freshman living in dormitories

While Clark and Skamania Counties have a higher proportion of the non vaccine preventable serogroup of meningococcal disease (90 of 124 cases in the past 11 years have been serogroup B), providers need to consider the fact that this can change from year to year and that many patients will travel to areas with higher proportions of vaccine preventable serogroups. Furthermore, the local incidence of serogroups C and Y are close to national rates. We therefore recommend that providers discuss with their patients the potential benefits of this vaccine so that they do not adopt a false sense of protection should they choose to be vaccinated, and that they strongly consider vaccinating those at greatest risk for the disease: college freshmen or students living in dormitories, microbiologists who are routinely exposed, military recruits, those living in hyperendemic regions, those with terminal complement component deficiencies, and those with anatomic or functional asplenia.

AVIAN FLU UPDATE

How can we have an episode without touching upon the latest about avian flu? According to a June 17, 2005, World Health Organization (WHO) report, the Ministry of Health of Vietnam has confirmed 4 new human cases of avian influenza A (H5N1) infection. All four patients are alive and are the latest in a series of sporadic human cases of H5N1 human infection reported in Vietnam since December 2004. Also, since December 2004, there have been 4 cases reported from Cambodia. In summary, at the time of this writing there have been 107 human cases of avian influenza A reported in Vietnam (86), Thailand (17), and Cambodia (4), resulting in 54 deaths. The CDC has not recommended that the general public avoid travel to any of these countries.

Most cases of H5N1 infection in humans are thought to have occurred from direct contact with infected poultry, although transmission of H5N1 viruses to two persons through consumption of uncooked duck blood may also have occurred in Vietnam in 2005. Therefore, consumption of uncooked poultry or poultry products, including blood, should be avoided in these settings.

Importantly, it is thought that a few cases of person-to-person spread of H5N1 virus have occurred, one between an ill child and her mother in Thailand in September of 2004 and more recently in several clusters of human cases in Vietnam. So far, spread of H5N1 virus from one ill person to another has been very rare and transmission has not continued beyond one person.

An inactivated vaccine to protect humans against influenza A (H5N1) is undergoing human clinical trials in the United States, but no human H5N1 vaccine is currently available. The H5N1 virus currently infecting birds and some humans in Asia is resistant to amantadine and rimantadine, two antiviral medications commonly used against influenza. The H5N1 virus is thought to be susceptible to the antiviral medications, oseltamavir and zanamavir, although the effectiveness is unknown.

RUBELLA NO LONGER A MAJOR PUBLIC HEALTH THREAT IN THE UNITED STATES

As a majority of public health headlines emphasize concerns for emerging infections, how about a bit of good news?

“A major public health milestone has been achieved in the United States - the rubella virus, a major cause of serious birth defects such as deafness and blindness, also known as congenital rubella syndrome (CRS), is no longer considered to be a major public health threat in the United States,” says Dr. Julie Gerberding, the director of the Centers for Disease Control and Prevention.

“The elimination of rubella in the United States is a tremendous step in protecting the health and well being of pregnant women and infants,” said Dr. Gerberding. “A disease that once seriously harmed tens of thousands of infants is no longer a major health threat, thanks to a safe and effective vaccine and successful immunization programs across the country. We should take pride in this accomplishment, and also recognize that we must maintain our vigilance or we can see a resurgence of disease.”

Many may remember that during 1964 and 1965 a rubella epidemic in the United States caused an estimated 12.5 million cases of rubella and 20,000 cases of congenital rubella syndrome (CRS) which led to more than 11,600 babies being born deaf, 11,250 fetal deaths, 2,100 neonatal deaths, 3,580 babies born blind and 1,800 babies born mentally retarded. Rubella is prevented through vaccination, which is recommended for all children and for adolescents and adults without documented evidence of immunity. It is especially important to verify that all women of child-bearing age are immune to rubella before they become pregnant. We thank you for doing your part in ensuring that all persons are up to date on all of their vaccinations.

WASABE EXERCISE A SUCCESS

In May 2005, thousands of Southwest Washington residents were hypothetically exposed to tularemia. Terrorists used a primitive dispersal device on a boat to cause sickness and death in people across four counties sharing a common waterway.

The mock terrorist activity was part of a full-scale bioterrorism exercise known as the Washington State Annual Bioterrorism Exercise (WASABE). The exercise focused on the coordinated response, decision making process, and integration and communication between local and state public health agencies, emergency management, local hospitals, first responders, and law enforcement. This exercise was also the first in Washington State to test the use of the Strategic National Stockpile (SNS) and mass prophylaxis dispensing clinics in an emergency response. The SNS program provides medicine, vaccine, and other supplies to states facing a catastrophic public health emergency. The event was a success due to the rapid identification of the organism and establishment of mass clinics for medication prophylaxis. A great deal was learned in the process and will assist with ongoing preparedness planning efforts by those involved.

2004 DISEASE SURVEILLANCE

Although mid way through 2005, all data from 2004 is now complete. The year in review demonstrates a decrease in HIV incidence coupled to an increase in AIDS prevalence consistent with national trends and consistent with treatment successes. Foodborne and diarrheal disease rates offer no significant rises upon years prior (when comparing 2004 with years not shown in the table). Chlamydia and gonorrhea cases are keeping pace with national increases of less than 10% per year and is thought to reflect PCR technologies, the ease of urine screening as well as a true increase in disease burden. Meningitis cases continue to fall, and were all of serogroup B, the non vaccine preventable variety. Other diseases that showed variation from 2003 to 2004 (Chronic hepatits B, Hep C and Pertussis) were also part of a continuing erratic trend that is up and down from year to year and not indicative of an increase in disease burden

EPI SODE NUMBERS, 2003 AND 2004
CLARK COUNTY AND SKAMANIA COUNTY

	CLARK		SKAMANIA	
	2004	2003	**2004**	2003
DISEASE	**YEAR TO DATE**		**YEAR TO DATE**	
AIDS	21	19	0	0
HIV reported/diagnosed	17	26	0	0
CAMPY	69	67	0	0
E.COLI 0157:H7	20	14	0	0
GIARDIA	37	23	0	0
SALMONELLOSIS	34	46	0	0
SHIGELLOSIS	11	6	0	0
HEP A	9	2	0	0
HEP B ACUTE	4	10	0	0
HEP B CHRONIC	45	99	0	0
HEP C	93	175	0	1
H.INFLU.	1	1	0	0
MENING	3	5	0	0
CHLAMYDIA	892	842	16	13
GONORRHEA	192	156	2	0
SYPHILIS (P&S)	2	7	0	0
MEASLES	0	0	0	0
MUMPS	0	0	0	0
PERTUSSIS	16	39	1	0
RUBELLA	0	0	0	0
STREP, GRP A (INVASIVE ONLY)	8	11	0	0
TUBERCULOSIS	8	17	0	0
TOTAL	**1482**	1698	**19**	14
Year	**2004**	2003	**2004**	2003

Note: Some of the above table figures are estimates due to late reporting

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